

07/04/2008,10716012IIIIa.trn

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NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 02	STN pricing information for 2008 now available
NEWS	3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS	9	FEB 08	STN Express, Version 8.3, now available
NEWS	10	FEB 20	PCI now available as a replacement to DPCI
NEWS	11	FEB 25	IFIREF reloaded with enhancements
NEWS	12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS	14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/CAPplus and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS EXPRESS	FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008		
NEWS HOURS	STN Operating Hours Plus Help Desk Availability		
NEWS LOGIN	Welcome Banner and News Items		
NEWS IPC8	For general information regarding STN implementation of IPC 8		

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 13:30:07 ON 07 APR 2008

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.42

0.42

FILE 'REGISTRY' ENTERED AT 13:31:02 ON 07 APR 2008

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STRUCTURE FILE UPDATES: 6 APR 2008 HIGHEST RN 1012582-98-7

DICTIONARY FILE UPDATES: 6 APR 2008 HIGHEST RN 1012582-98-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

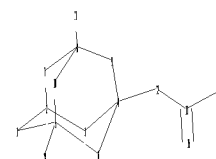
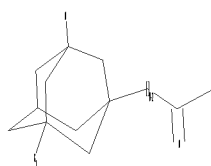
Please note that search-term pricing does apply when  
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REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10716012IIIIa.str



```
chain nodes :
11 12 13 14 15 18
ring nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
4-12 5-18 8-11 12-13 13-14 13-15
ring bonds :
1-2 1-5 2-3 2-7 3-4 4-6 4-9 5-6 5-10 7-8 8-9 8-10
exact/norm bonds :
1-2 1-5 2-3 2-7 3-4 4-6 4-9 5-6 5-10 5-18 7-8 8-9 8-10 8-11 13-15
exact bonds :
4-12 12-13 13-14
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G1:H,OH

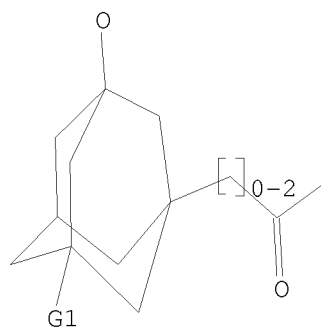
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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 18:CLASS
```

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 H, OH

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 13:32:07 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 473 TO ITERATE

100.0% PROCESSED 473 ITERATIONS

3 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 8156 TO 10764

PROJECTED ANSWERS: 3 TO 163

L2 3 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 13:32:11 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 9554 TO ITERATE

100.0% PROCESSED 9554 ITERATIONS

39 ANSWERS

SEARCH TIME: 00.00.01

L3 39 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

178.82

179.24

FILE 'CAPLUS' ENTERED AT 13:32:14 ON 07 APR 2008

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FILE COVERS 1907 - 7 Apr 2008 VOL 148 ISS 15

FILE LAST UPDATED: 6 Apr 2008 (20080406/ED)

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<http://www.cas.org/infopolicy.html>

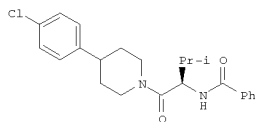
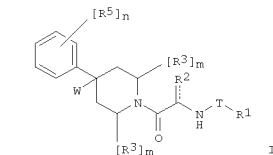
=> s l3

L4 49 L3

=> d ed abs ibib hitstr tot

07/04/2008,10716012IIIIa.trn

L4 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 17 Aug 2007  
GI



AB Title compds. I [T = CO, COO, CONH, CON-alkyl, SO2; R1 = (un)substituted cyclo/alkyl, (hetero)aryl, heterocyclyl; R2 = cycloalkyl/cyclo/alkyl, alkenyl optionally substituted with OH; R3 at each occurrence = alkyl; or any 2 R3's attached to the same C may form a 3-6 membered ring; W = H, F, OH, CN, NH2; R5 = halo, CN, alkoxy; W and one R5 together with the C

atoms to which each is attached may form an (un)substituted 3-6 membered O containing ring; m at each occurrence = independently 0-2; n = 1-3; and their

stereoisomers, prodrugs and pharmaceutically acceptable salts] were prepared

as modulators of OCR-1 and MIP-1, especially MIP-1 $\alpha$  receptors. Thus, valine amide II was prepared using N-(tert-butoxycarbonyl)-D-valine, 4-(4-chlorophenyl)piperidine hydrochloride, and benzoic acid. All the invention compds. were evaluated for their chemokine receptor modulatory activity. Methods of treating and preventing inflammatory diseases such as asthma and allergic diseases, as well as autoimmune pathologies such

as rheumatoid arthritis and atherosclerosis using said modulators are disclosed.

ACCESSION NUMBER: 2007:912269 CAPLUS  
DOCUMENT NUMBER: 147:277915  
TITLE: Preparation of 4-phenylpiperidine-substituted amino acid derivatives, particularly valine amides, as

L4 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
modulators of chemokine receptor activity and their use in the treatment of inflammatory and autoimmune diseases

INVENTOR(S): Carter, Percy H.; Cavallaro, Cullen L.; Duncia, John V.; Gardner, Daniel S.; Hynes, John; Liu, Rui-Qin; Santella, Joseph B.; Dodd, Dharmpal S.

PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA

SOURCE: PCT Int. Appl., 515pp.  
CODEN: FIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007092681	A2	20070816	WO 2007-US61012	20070125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20070208056	A1	20070906	US 2007-625874	20070123
PRIORITY APPLN. INFO.:				US 2006-762801P P 20060127
				US 2007-625874 A 20070123

OTHER SOURCE(S): MARPAT 147:277915

IT 946588-10-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperidine-substituted amino acid derivs., particularly

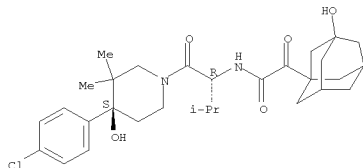
valine amides, as chemokine receptor modulators)

RN 946588-10-9 CAPLUS

CN Tricyclo[3.3.1.1<sup>3,7</sup>]decane-1-acetamide, N-[(1R)-1-[[[(4S)-4-(4-chlorophenyl)-4-hydroxy-3,3-dimethyl-1-piperidinyl]carbonyl]-2-methylpropyl]-3-hydroxy- $\alpha$ -oxo- (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 2 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 28 Jun 2007

AB The non-proteinogenic amino acid ( $\alpha$ S)- $\alpha$ -amino-3-hydroxy-1-adamantaneacetic acid [i.e., (S)-(3-hydroxy-1-adamantyl)glycine], is a

key

intermediate required for the synthesis of Saxagliptin (BMS-477118), a dipeptidyl peptidase IV inhibitor under development for treatment of type 2 diabetes mellitus. A keto acid, 3-hydroxy- $\alpha$ -oxo-1-adamantaneacetic acid (I), was converted to (S)-(3-hydroxyadamantyl)glycine by reductive amination using a phenylalanine dehydrogenase from Thermoactinomyces intermedius expressed in a modified form in Pichia pastoris or Escherichia coli. NAD (NAD) produced during the reaction was recycled to NADH (reduced form of NAD) using formate dehydrogenase. Pichia pastoris produces an endogenous formate dehydrogenase when grown on methanol and the corresponding gene was

cloned

and expressed in E. coli. The modified phenylalanine dehydrogenase contains two amino acid changes at the C-terminus and a 12-amino acid extension of the C-terminus. The modified enzyme is more effective with keto acid I than the wild-type enzyme, but less effective with the

natural

substrate, Ph pyruvate. Production of multi-kilogram batches was

originally

carried out with exts. of Pichia pastoris expressing the modified phenylalanine dehydrogenase from Thermoactinomyces intermedius and endogenous formate dehydrogenase, and further scaled up using a

preparation of

the two enzymes expressed in E. coli.

ACCESSION NUMBER: 2007:700078 CAPLUS

DOCUMENT NUMBER: 147:386225

TITLE: Preparation of an amino acid intermediate for the dipeptidyl peptidase IV inhibitor, Saxagliptin, using a modified phenylalanine dehydrogenase

AUTHOR(S): Hanson, Ronald L.; Goldberg, Steven L.; Brzozowski, David B.; Tully, Thomas P.; Cazzulino, Dana; Parker, William L.; Lyngberg, Olav K.; Vu, Truc C.; Wong, Michael K.; Patel, Ramesh N.

CORPORATE SOURCE: Process Research and Development, Bristol-Myers Squibb, New Brunswick, NJ, 08903, USA

SOURCE: Advanced Synthesis & Catalysis (2007), 349(8+9), 1369-1378

CODEN: ASCAF7; ISSN: 1615-4150

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 709031-28-7, 3-Hydroxy- $\alpha$ -oxo-1-adamantaneacetic acid

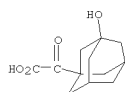
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of  $\alpha$ -amino(hydroxy)adamantaneacetic acid (intermediate for Saxagliptin) via reductive amination of hydroxy- $\alpha$ -(oxo)adamantaneacetic acid using modified phenylalanine dehydrogenase)

RN 709031-28-7 CAPLUS

CN Tricyclo[3.3.1.1<sup>3,7</sup>]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo- (CA INDEX NAME)

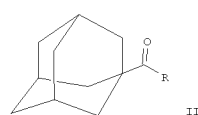
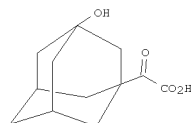
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L4 ANSWER 2 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 3 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 07 Dec 2006  
GI



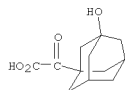
AB 3-Hydroxyadamantaneglyoxylic acid (I) is prepared by the oxidation of 1-acyladamantanes (II; R = C1-5 hydrocarbyl, CH2OH, CHO, CO2H; e.g., 1-acetyladamantane) with an oxidant (e.g., potassium permanganate) under oxidizing conditions.

ACCESSION NUMBER: 2006:1280989 CAPLUS  
DOCUMENT NUMBER: 146:27567  
TITLE: Oxidative process for the preparation of 3-hydroxyadamantaneglyoxylic acid from 1-acyladamantanes  
INVENTOR(S): Berner, Mathias; Partanen, Reijo; Salakka, Auli; Somersalo, Pekka  
PATENT ASSIGNEE(S): Kemfine Oy, Finland  
SOURCE: PCT Int. Appl., 15pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006128952	A1	20061207	WO 2006-FI167	20060529
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
FI 2005000577	A	20061201	FI 2005-577	20050531
EP 1885680	A1	20080213	EP 2006-743535	20060529
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			

L4 ANSWER 3 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
IN 2007CN05472 A 20080328 IN 2007-CN5472 20071129  
PRIORITY APPLN. INFO.: FI 2005-577 A 20050531  
WO 2006-FI167 W 20060529

OTHER SOURCE(S): CASREACT 146:27567; MARPAT 146:27567  
IT 709031-28-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(oxidative process for the preparation of  
3-hydroxyadamantaneglyoxylic acid  
from 1-acyladamantanes)  
RN 709031-28-7 CAPLUS  
CN Tricyclo[3.3.1.1.3,7]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo- (CA  
INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 4 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 30 Nov 2006  
GI

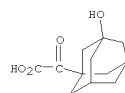
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB 3-Hydroxyadamantaneglyoxylic acid (I) is prepared by the oxidation of 1-acyladamantanes (II; R = C1-5 hydrocarbyl, CH2OH, CHO, CO2H; e.g., 1-acetyladamantane) with an oxidant (e.g., potassium permanganate) under oxidizing conditions.

ACCESSION NUMBER: 2006:1251710 CAPLUS  
DOCUMENT NUMBER: 146:27566  
TITLE: Oxidative process for the preparation of 3-hydroxyadamantaneglyoxylic acid from 1-acyladamantanes  
INVENTOR(S): Berner, Mathias; Partanen, Reijo; Salakka, Auli; Somersalo, Pekka  
PATENT ASSIGNEE(S): Kemfine Oy, Finland  
SOURCE: U.S. Pat. Appl. Publ., 6pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060270870	A1	20061130	US 2005-139624	20050531
US 7205432	B2	20070417		
PRIORITY APPLN. INFO.:			US 2005-139624	20050531

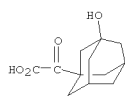
OTHER SOURCE(S): CASREACT 146:27566; MARPAT 146:27566  
IT 709031-28-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(oxidative process for the preparation of  
3-hydroxyadamantaneglyoxylic acid  
from 1-acyladamantanes)  
RN 709031-28-7 CAPLUS  
CN Tricyclo[3.3.1.1.3,7]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo- (CA  
INDEX NAME)



07/04/2008,10716012IIIIa.trn

L4 ANSWER 5 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 28 Sep 2006  
 AB Conversion of an  $\alpha,\alpha$ -dichloroester to the corresponding  $\alpha$ -keto acid was unexpectedly complicated by a novel 1,4-homofragmentation. Investigation of the kinetics of this reaction revealed a mechanism involving an  $\alpha$ -lactone intermediate, which can lead to both the desired  $\alpha$ -keto acid and the 1,4-homofragmentation, with the product distribution being dependent upon reaction conditions. This information allowed development of a process that affords the  $\alpha$ -keto acid exclusively and should be generally applicable to the preparation of  $\alpha$ -keto acids from  $\alpha,\alpha$ -dichloroesters or acids.

ACCESSION NUMBER: 2006:1002169 CAPLUS  
 DOCUMENT NUMBER: 145:438205  
 TITLE: Novel 1,4-Homofragmentation via an  $\alpha$ -Lactone  
 AUTHOR(S): Godfrey, Jollie D., Jr.; Fox, Rita T.; Buono, Frederic  
 CORPORATE SOURCE: G.; Gougoutas, Jack Z.; Malley, Mary F.  
 Department of Process Research and Development and  
 Department of Solid State Chemistry, Pharmaceutical  
 Research Institute, Princeton, NJ, 08543-4000, USA  
 SOURCE: Journal of Organic Chemistry (2006), 71(22),  
 8647-8650  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 145:438205  
 IT 709031-28-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (1,4-homofragmentation via  $\alpha$ -lactone)  
 RN 709031-28-7 CAPLUS  
 CN Tricyclo[3.3.1.1<sup>3,7</sup>]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo- (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR  
 THIS  
 FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L4 ANSWER 6 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 24 Mar 2006  
 AB The title process comprises subjecting 1-acetyl-3-hydroxyadamantane to a liquid-phase oxidation with a permanganate salt (e.g., sodium permanganate) to produce 2-(3-hydroxy-1-adamantyl)-2-oxoacetic acid, or a salt, with acidification (e.g., hydrochloric acid) to form the free acid.

ACCESSION NUMBER: 2006:273089 CAPLUS  
 DOCUMENT NUMBER: 144:311720  
 TITLE: Oxidative process for the preparation of 2-(3-hydroxy-1-adamantyl)-2-oxoacetic acid or its salts from 1-acetyl-3-hydroxyadamantane  
 INVENTOR(S): Williams, Eric L.  
 PATENT ASSIGNEE(S): Albemarle Corporation, USA  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

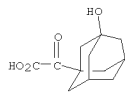
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060063950	A1	20060323	US 2005-228055	20050916
US 7250529	B2	20070731		
WO 2006034175	A1	20060330	WO 2005-US33446	20050916
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BI, KG, KZ, MD, RU, TJ, TM				
EP 1789376	A1	20070530	EP 2005-797765	20050916
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 101023052	A	20070822	CN 2005-80031300	20050916
IN 2007DN01812	A	20070817	IN 2007-DN1812	20070308
PRIORITY APPLN. INFO.:				US 2004-610893P P 20040917
				WO 2005-US33446 W 20050916

OTHER SOURCE(S): CASREACT 144:311720  
 IT 39917-38-9, 1-Acetyl-3-hydroxyadamantane  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (oxidative process for the preparation of 2-(3-hydroxy-1-adamantyl)-2-oxoacetic acid or its salts from 1-acetyl-3-hydroxyadamantane)  
 RN 39917-38-9 CAPLUS  
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)

L4 ANSWER 6 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

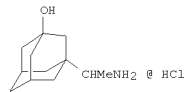


IT 709031-28-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (oxidative process for the preparation of 2-(3-hydroxy-1-adamantyl)-2-oxoacetic acid or its salts from 1-acetyl-3-hydroxyadamantane)  
 RN 709031-28-7 CAPLUS  
 CN Tricyclo[3.3.1.1<sup>3,7</sup>]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR  
 THIS  
 FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L4 ANSWER 7 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 17 Mar 2006  
 GI



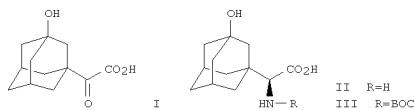
AB The title compound (I) was prepared in 5 steps from 3-chloro-1-adamantanecarboxylic acid, and the steps were optimized.

ACCESSION NUMBER: 2006:236996 CAPLUS  
 DOCUMENT NUMBER: 145:188462  
 TITLE: Hydroxyremantadine - a new adamantane-derivative antiherpetic drug: reaction sequence for its manufacture  
 AUTHOR(S): Ovchinnikov, K. A.; Pozdnyakov, V. V.; Moiseev, I. K.  
 CORPORATE SOURCE: Kafedra Org. Khim., Samar. Gos. Tekh. Univ., Samara, Russia  
 SOURCE: Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (2005), 48(10), 71-73  
 CODEN: IVUKAR; ISSN: 0579-2991  
 PUBLISHER: Ivanovskii Gosudarstvennyi Khimiko-Tekhnologicheskii Universitet  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 145:188462  
 IT 39917-38-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (optimization of hydroxyremantadine preparation)  
 RN 39917-38-9 CAPLUS  
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



07/04/2008,10716012IIIIa.trn

L4 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 10 Nov 2005  
GI



AB A process for production of cyclopropyl-fused pyrrolidine-based inhibitors of dipeptidyl peptidase IV is provided which employs a BOC-protected amine of the structure (III) prepared by subjecting an acid of the structure (I) to reduce amination by treating the acid with ammonium formate, NAD, dithiothreitol and partially purified phenylalanine dehydrogenase/formate dehydrogenase enzyme concentrate (PDH/FDH) and without isolating treating the resulting amine of the structure (II) with di-tert-Bu dicarbonate to form the BOC-protected amine.

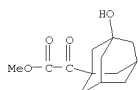
ACCESSION NUMBER: 2005:1192917 CAPLUS  
DOCUMENT NUMBER: 143:458679  
TITLE: Chemoenzymic preparation of dipeptidyl IV inhibitors  
INVENTOR(S): Politino, Michael; Cadin, Matthew M.; Skonezny, Paul M.; Chen, Jason G.  
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA  
SOURCE: PCT Int. Appl., 73 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005106011	A2	20051110	WO 2005-US12615	20050413
WO 2005106011	A3	20061026		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,

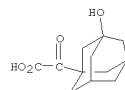
L4 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

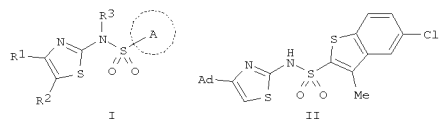
MR, NE, SN, TD, TG	A1	20051124	US 2005-104015	20050412
US 20050260712	A1	20051110	AU 2005-238442	20050413
AU 2005238442	A1	20051110	CA 2005-2563903	20050413
CA 2563903	A2	20070103	EP 2005-735335	20050413
EP 1737970				
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU				
CN 1968925	A	20070523	CN 2005-80019512	20050413
BR 2005009890	A	20071030	BR 2005-9890	20050413
JP 2007532137	T	20071115	JP 2007-508513	20050413
MX 2006PA11735	A	20061211	MX 2006-PA11735	20061010
IN 2006DN05914	A	20070713	IN 2006-DN5914	20061011
NO 2006005191	A	20061113	NO 2006-5191	20061113
KR 2007006903	A	20070111	KR 2006-723783	20061113
PRIORITY APPLN. INFO.:			US 2004-561986P	P 20040414
			WO 2005-US12615	W 20050413

OTHER SOURCE(S): CASREACT 143:458679  
IT 709031-28-7P  
RL: BCP (Biochemical process); CPS (Chemical process); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent) (chemoenzymic preparation of dipeptidyl IV inhibitors)  
RN 709031-28-7 CAPLUS  
CN Tricyclo[3.3.1.1,7]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo- (CA INDEX NAME)



IT 709031-33-4P  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent) (chemoenzymic preparation of dipeptidyl IV inhibitors)  
RN 709031-33-4 CAPLUS  
CN Tricyclo[3.3.1.1,7]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo-, methyl ester (CA INDEX NAME)

L4 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 20 Oct 2005  
GI



AB Title compds. represented by the formula I [wherein R1 = hydroxy, halo or alkyl substituted adamantane-1-yl; R2 = H, alkoxy, carbonyl, alkyl; R3 = H, alkyl, alkenyl or alkynyl; ring A = (un)substituted (hetero)aryl; and pharmaceutically acceptable salts thereof] were prepared as 11 $\beta$ -HSD1 (11 $\beta$ -hydroxysteroid dehydrogenase type 1) inhibitors. For example, reaction of 1-adamantyl bromomethyl ketone with thiourea to give 4-(1-adamantyl)-2-aminothiazole-HBr, followed by substitution with 5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl chloride provided II. II showed inhibition of 11 $\beta$ -HSD1 with an IC50 value of 16 nM.

ACCESSION NUMBER: 2005:1126675 CAPLUS  
DOCUMENT NUMBER: 143:405898  
TITLE: Preparation of adamantyl thiazole derivatives as 11 $\beta$ -HSD1 inhibitors  
INVENTOR(S): Fukushima, Hiroshi; Takahashi, Masato; Busujima, Tsuyoshi; Kawaguchi, Takanori  
PATENT ASSIGNEE(S): Taisho Pharmaceutical Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 99 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005097764	A1	20051020	WO 2005-JP7106	20050406

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2007261945 A 20071011 JP 2004-113205 20040407  
PRIORITY APPLN. INFO.: JP 2004-113205 A 20040407

OTHER SOURCE(S): MARPAT 143:405898  
IT 39917-38-9P 42825-02-5P

07/04/2008,10716012IIIIa.trn

L4 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. of N-(1-adamanty)thiazolyl sulfonamide derivs. as  
11 $\beta$ -HSD1 inhibitors)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)

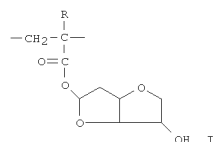


RN 42825-02-5 CAPLUS  
CN Ethanone, 1-(3-methoxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 27 Aug 2004  
GI



AB The title composition contains an alkali solubilizable resin, an actinic  
ray-  
or radiation-sensitive acid generator, and fluoro and/or silicone  
surfactant, wherein the resin has repeating unit I (R = H, alkyl). The  
composition provides consistent pattern without depending on covering  
ratio of  
a photomask.

ACCESSION NUMBER: 2004:701022 CAPLUS  
DOCUMENT NUMBER: 141:233189  
TITLE: Positive far UV-sensitive photoresist compositions  
INVENTOR(S): Sato, Kenichiro; Kodama, Rumihiro  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

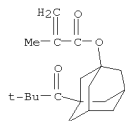
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004240387	A	20040826	JP 2003-75896	20030319
KR 2004050881	A	20040617	KR 2003-89268	20031210
PRIORITY APPLN. INFO.:			JP 2002-358305	A 20021210
			JP 2003-75896	A 20030319

OTHER SOURCE(S): MARPAT 141:233189  
IT 745831-50-9P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
(pos. photoresist compns.)  
RN 745831-50-9 CAPLUS  
CN D-Glucitol, 1,4:3,6-dianhydro-, mono(2-methyl-2-propenoate), polymer with  
3-(2,2-dimethyl-1-oxopropyl)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl  
2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl  
2-methyl-2-propenoate

L4 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
(9CI) (CA INDEX NAME)

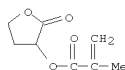
CM 1

CRN 745831-49-6  
CMF C19 H28 O3



CM 2

CRN 195000-66-9  
CMF C8 H10 O4



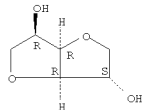
CM 3

CRN 745831-43-0  
CMF C10 H14 O5  
CCI IDS

CM 4

CRN 652-67-5  
CMF C6 H10 O4

Absolute stereochemistry. Rotation (+).



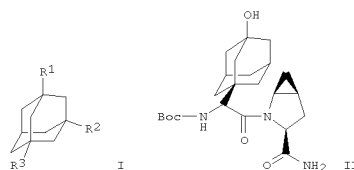
L4 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
CM 5

CRN 79-41-4  
CMF C4 H6 O2



07/04/2008,10716012IIIIa.trn

L4 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
ED Entered STN: 27 Jun 2004  
GI



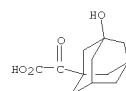
AB The invention provides methods and compds. for the production of cyclopropyl-fused pyrrolidine-based inhibitors of dipeptidyl peptidase IV.

Also described are methods for the asym. reductive amination of (3-hydroxyadamantan-1-yl)oxoacetic acid. Adamantane derivs. I [R1 is H or OH; R2 is C(O)COR4, C(O)NR5R6, C(X)MOR4 or C(NR7R8)COR4, where X is halo, n is 1-2, R4 is alkoxy, NH2 or OH, and R5-R8 are H or carbalkoxy; R3 is H, OH or NR9C(O)R10, where R9 is carboxy-substituted alkyl or aryl and R10 is 3-cyano-2-azabicyclo[3.1.0]hex-2-yl] or their pharmaceutically-acceptable salts are claimed. Thus, adamantyl-substituted glycineamide derivative II (Boc = tert-butoxycarbonyl) was prepared via amidation of Boc-protected (S)- $\alpha$ -amino-3-hydroxy-1-adamantaneacetic acid.

ACCESSION NUMBER: 2004:515478 CAPLUS  
DOCUMENT NUMBER: 141:54618  
TITLE: Preparation of cyclopropyl-fused pyrrolidine-based inhibitors of dipeptidyl peptidase IV  
INVENTOR(S): Vu, Truc Chi; Brzozowski, David B.; Fox, Rita; Godfrey, Jollie Duaine, Jr.; Hanson, Ronald L.; Kolotuchin, Sergei V.; Mazzullo, John A., Jr.; Patel, Ramesh N.; Wang, Jianji; Wong, Kwok; Yu, Jurong; Zhu, Jason; Magnin, David R.; Augeri, David J.; Hamann, Lawrence G.  
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA  
SOURCE: PCT Int. Appl., 101 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

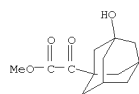
L4 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
PATENT NO. KIND DATE APPLICATION NO. DATE  
WO 2004052850 A2 20040624 WO 2003-US38558 20031204  
WO 2004052850 A3 20060302  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,  
TG  
US 20050090539 A1 20050428 US 2003-716012 20031118  
CA 2508619 A1 20040624 CA 2003-2508619 20031204  
AU 2003297647 A1 20040630 AU 2003-297647 20031204  
EP 1581487 A2 20051005 EP 2003-812799 20031204  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
BR 2003017139 A 20051129 BR 2003-17139 20031204  
CN 1791401 A 20060621 CN 2003-80109631 20031204  
JP 2006516121 T 20060622 JP 2004-559282 20031204  
MX 2005PA05970 A 20050818 MX 2005-PA5970 20050603  
IN 2008DN00420 A 20080215 IN 2008-DN420 20080115  
PRIORITY APPLN. INFO.: US 2002-431814P F 20021209  
WO 2003-US38558 W 20031204  
IN 2005-DN2279 A3 20050530

OTHER SOURCE(S): CASREACT 141:54618; MARPAT 141:54618  
IT 709031-28-7P 709031-33-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of cyclopropyl-fused pyrrolidine-based inhibitors of dipeptidyl peptidase IV)  
RN 709031-28-7 CAPLUS  
CN Tricyclo[3.3.1.1.3,7]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo- (CA INDEX NAME)



RN 709031-33-4 CAPLUS  
CN Tricyclo[3.3.1.1.3,7]decane-1-acetic acid, 3-hydroxy- $\alpha$ -oxo-, methyl

L4 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
ester (CA INDEX NAME)



L4 ANSWER 12 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 02 Apr 2004  
AB The compns., useful for manufacturing semiconductor devices, comprise (A) resins with Tg 120-180° increasing their alkali solubility by acid-induced decomposition, (B) photoacid generators, and (C) solvents, wherein the resins have partial structures of OH groups substituted by alicyclic hydrocarbon groups. The alicyclic structures may have adamantane groups.

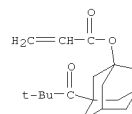
ACCESSION NUMBER: 2004:271951 CAPLUS  
DOCUMENT NUMBER: 140:294796  
TITLE: Excimer laser-sensitive chemically amplified photoresist compositions with high sensitivity, resolution, and etching resistance  
INVENTOR(S): Sato, Kenichiro  
PATENT ASSIGNEE(S): Fujii Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004101642	A	20040402	JP 2002-260191	20020905
JP 4031327	B2	20080109		
KR 2004030278	A	20040409	KR 2003-59746	20030828

PRIORITY APPLN. INFO.: JP 2002-260191 A 20020905

IT 676260-19-8P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(excimer laser-sensitive photoresists with high sensitivity, resolution, and etching resistance)  
RN 676260-19-8 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, 3,5-dihydroxytricyclo[3.3.1.1.3,7]dec-1-yl ester, polymer with 3-(2,2-dimethyl-1-oxopropyl)tricyclo[3.3.1.1.3,7]dec-1-yl 2-propenoate, tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate and 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9C1) (CA INDEX NAME)

CM 1  
CRN 676260-18-7  
CMP C18 H26 O3

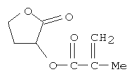


07/04/2008,10716012IIIIa.trn

L4 ANSWER 12 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

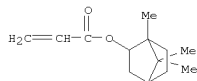
CM 2

CRN 195000-66-9  
CMF C8 H10 O4



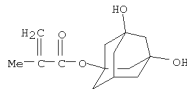
CM 3

CRN 128946-20-3  
CMF C13 H20 O2



CM 4

CRN 115522-15-1  
CMF C14 H20 O4

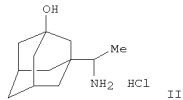
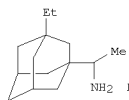


L4 ANSWER 13 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 09 Oct 2003  
AB 3-Chloro-1-acetyladamantane was subjected to substitution reactions with C6H6, PhMe, AgF, and NaOH to give the corresponding 3-substituted derivs. 3-Hydroxy-1-acetyladamantane was treated with HCO2H, CHCl3:CCl2, and CH2:CCl2 to give the 3-carboxylic, 3-chloroacetic, and 3-acetic acids.  
ACCESSION NUMBER: 2003:791319 CAPLUS  
DOCUMENT NUMBER: 140:253274  
TITLE: Synthesis of 3-R-1-acetyladamantanes by substitution in 3-chloro- and 3-hydroxy-1-acetyladamantanes  
AUTHOR(S): Pozdnyakov, V. V.; Moiseev, I. K.  
CORPORATE SOURCE: Samara State Technical University, Samara, 443100, Russia  
SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2003), 39(5), 739-741  
CODEN: RJOCEQ; ISSN: 1070-4280  
PUBLISHER: MAIK Nauka/Interperiodica Publishing  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 140:253274  
IT 39917-38-9P, 1-Acetyl-3-hydroxyadamantane  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis of 3-R-1-acetyladamantanes by substitution in 3-chloro- and 3-hydroxy-1-acetyladamantanes)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 14 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 11 Jun 2003  
GI



AB Chemical synthesis of 3-substituted analogs of remantadine is described. Derivs. I and II when compared with remantadine had not only potent activity against ethalon herpes simplex type 1 virus strain but also were active against herpes virus resistant to aciclovir. Compound II demonstrated virucidal effect. Combination of II + aciclovir had

additive effect against ethalon herpes simplex type 1 virus strain. Investigated 3-substituted analogs demonstrated low activity in the model system of influenza virus A. No antiviral activity was demonstrated in the model system of Sindbis virus (though compds. were evaluated in subtoxic concns.).

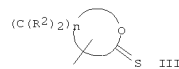
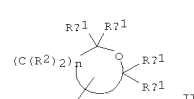
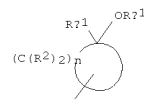
ACCESSION NUMBER: 2003:444131 CAPLUS  
DOCUMENT NUMBER: 139:239741  
TITLE: 3-Substituted analogs of remantadine: synthesis and antiherpetic activity in culture of Vero cells  
AUTHOR(S): Moiseev, I. K.; Andronova, V. L.; Pozdnyakov, V. V.; Makarova, N. V.; Galegov, G. A.  
CORPORATE SOURCE: D. I. Ivanovsky Res. Inst. of Virology, Russian Academy of Med. Sciences, Moscow, Russia  
SOURCE: Antibiotiki i Khimioterapiya (2002), 47(11), 9-12  
CODEN: ANKHEW; ISSN: 0235-2990  
PUBLISHER: Izdatel'skii Dom "Krasnaya Ploshchad"  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
IT 39917-38-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis and antiherpetic activity of 3-substituted analogs of remantadine)

RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



L4 ANSWER 15 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 12 May 2002  
GI



AB High-mol. compds. for photoresists, each having at least one skeleton represented by the general formula -RC(Rx1)2(ORx1), I, II, or III: -RC(Rx1)2(ORx1) I II III( R = alicyclic skeleton; Rx1= electron-attracting group, H, monovalent organic group). The compds. shows small absorption towards ≤160 nm light and provides the fine resist pattern of nanometer size and of the high etching resistance.

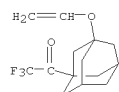
ACCESSION NUMBER: 2002:353506 CAPLUS  
DOCUMENT NUMBER: 136:377479  
TITLE: High-molecular compounds for photoresists, monomeric compounds, photosensitive resin compositions, method for forming patterns with the compositions, and process for production of electronic components  
INVENTOR(S): Shida, Naomi; Ushirogouchi, Toru; Naito, Takuya  
PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan  
SOURCE: PCT Int. Appl., 321 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002036646	A1	20020510	WO 2001-JP9567	20011031
W: KR, US				
JP 2002201219	A	20020719	JP 2001-295012	20010926
JP 4034538	B2	20080116		
US 20030235781	A1	20031225	US 2003-425848	20030430
US 6974658	B2	20051213		
PRIORITY APPLN. INFO.:			JP 2000-332358	A 20001031

07/04/2008,10716012IIIIa.trn

L4 ANSWER 15 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
ED Entered STN: 21 Feb 2002 JF 2001-295012 A 20010926  
WO 2001-JP9567 A1 20011031

OTHER SOURCE(S): MARPAT 136:377479  
IT 424826-92-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(monomer of high-mol. compds. for photoresists)  
RN 424826-92-6 CAPLUS  
CN Ethanone, 1-[3-(ethenyl)oxy]tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]-2,2,2-trifluoro-  
(CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 16 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 21 Feb 2002  
AB Iffland's reactions of 1-adamantyl Me ketone, (1-adamantyl)acetone, 3-hydroxy-1-adamantyl Me ketone, and N-bromosuccinimide gave bromonitro derivs. which, on reduction with sodium borohydride, afforded 1-(1-adamantyl)-1-nitroethane, 1-(1-adamantyl)-2-nitropropane, and 1-(3-hydroxy-1-adamantyl)-1-nitroethane.  
ACCESSION NUMBER: 2002:136602 CAPLUS  
DOCUMENT NUMBER: 137:5932  
TITLE: Iffland's reaction with methyl ketone oximes of the adamantane series  
AUTHOR(S): Makarova, N. V.; Moiseev, I. K.; Zemtsova, M. N.  
CORPORATE SOURCE: Samara State Technical University, Samara, 443010, Russia  
SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2001), 37(10), 1435-1437  
CODEN: RJOCEQ; ISSN: 1070-4280  
PUBLISHER: MAIK Nauka/Interperiodica Publishing  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 137:5932  
IT 39917-38-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(Iffland's reaction with Me ketone oximes of the adamantane series)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 17 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 07 Feb 2002  
AB A general procedure was proposed for synthesizing 3-R-1-adamantyl Me ketones from the corresponding adamantanecarbonyl chlorides and di-Me malonate in toluene (benzene) in the presence of sodium hydroxide. Intermediate di-Me (3-R-1-adamantylcarbonyl)malonates can also be isolated. The resulting ketones reacted with hydroxylamine and formamide in the presence of formic acid to give the corresponding oximes and 1-(3-R-1-adamantyl)ethylamines. Di-Me (3-R-1-adamantylcarbonyl)malonates reacted with phenylhydrazine to give adamantyl-substituted 4,5-dihydropyrazol-5-one derivs.  
ACCESSION NUMBER: 2002:102512 CAPLUS  
DOCUMENT NUMBER: 136:401464  
TITLE: Synthesis and reactivity of 3-R-1-adamantyl methyl ketones  
AUTHOR(S): Pozdnyakov, V. V.; Makarova, N. V.; Moiseev, I. K.  
CORPORATE SOURCE: Samara State Technical University, Samara, 443010, Russia  
SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2001), 37(9), 1228-1231  
CODEN: RJOCEQ; ISSN: 1070-4280  
PUBLISHER: MAIK Nauka/Interperiodica Publishing  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 136:401464  
IT 39917-38-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reactivity of 3-R-1-adamantyl Me ketones)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 18 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 08 Jan 2002  
AB Gas-liquid and thin-layer chromatog. were used to monitor the composition of reaction mixts. during synthesis of the title compds. Retention indexes were determined for 12 oxygenated adamantane derivs.  
ACCESSION NUMBER: 2002:14904 CAPLUS  
DOCUMENT NUMBER: 136:340420  
TITLE: Chromatographic monitoring of 3-hydroxy-1-adamantyl methyl ketone and 2-adamantylidenecyanoacetophenone synthesis  
AUTHOR(S): Lobachev, A. L.; Sinitsyn, M. V.; Kolotvin, A. A.  
CORPORATE SOURCE: Samar. Gos. Univ., Samara, Russia  
SOURCE: Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (2001), 44(5), 109-112  
CODEN: IJUKAR; ISSN: 0579-2991  
PUBLISHER: Ivanovskii Gosudarstvennyi Khimiko-Tekhnologicheskii Universitet  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
IT 39917-38-9P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(chromatog. monitoring of 3-hydroxy-1-adamantyl Me ketone and 2-adamantylidenecyanoacetophenone synthesis)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



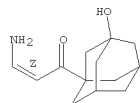
L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 20 Dec 2001  
 AB The Claisen-Schmidt reaction between 3-hydroxy-1-adamantyl Me ketone and aromatic aldehydes (benzaldehyde and 2-thiophenecarbaldehyde) in 2-propanol catalyzed by 50% aqueous potassium hydroxide affords 1-(3-hydroxy-1-adamantyl)-3-R-2-propen-1-ones. The reaction of 3-hydroxy-1-adamantyl Me ketone with Et formate and sodium in benzene gives rise to sodium enolate of 1-(3-hydroxy-1-adamantyl)-3-hydroxy-2-propen-1-one. The latter compound treated with amine hydrochlorides in 50% aqueous alc. furnishes 1-(3-hydroxy-1-adamantyl)-3-NRR'-amino-2-propen-1-ones.

ACCESSION NUMBER: 2001:916994 CAPLUS  
 DOCUMENT NUMBER: 136:279138  
 TITLE: Synthesis of unsaturated ketones from 3-hydroxy-1-adamantyl methyl ketone  
 AUTHOR(S): Makarova, N. V.; Pimenov, A. A.; Zemtsova, M. N.; Moiseev, I. K.  
 CORPORATE SOURCE: Samara State Technical University, Samara, 443010, Russia  
 SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2001), 37(8), 1099-1101  
 CODEN: RJOCEQ; ISSN: 1070-4280  
 PUBLISHER: MAIK Nauka/Interperiodica Publishing  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 136:279138  
 IT 39917-38-9  
 RL: RCT (Reactant); RACT (Reactant or reagent) (synthesis of unsatd. ketones from hydroxyadamantyl Me ketone via Claisen-Schmidt condensation of hydroxyadamantyl ketone and arom aldehydes)  
 RN 39917-38-9 CAPLUS  
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



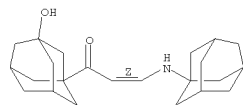
IT 406695-83-8P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (synthesis of unsatd. ketones from hydroxyadamantyl Me ketone via Claisen-Schmidt condensation of hydroxyadamantyl ketone and arom aldehydes)  
 RN 406695-83-8 CAPLUS  
 CN 2-Propen-1-one, 3-hydroxy-1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)-, monosodium salt (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



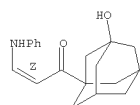
RN 406695-87-2 CAPLUS  
 CN 2-Propen-1-one, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)-3-(tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylamino)-, (2Z)- (CA INDEX NAME)

Double bond geometry as shown.



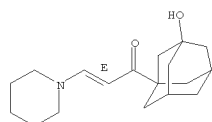
RN 406695-88-3 CAPLUS  
 CN 2-Propen-1-one, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)-3-(phenylamino)-, (2Z)- (CA INDEX NAME)

Double bond geometry as shown.

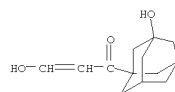


RN 406695-89-4 CAPLUS  
 CN 2-Propen-1-one, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)-3-(1-piperidinyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

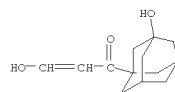


L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

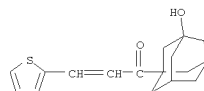


● Na

IT 406695-84-9P 406695-85-0P 406695-86-1P  
 406695-87-2P 406695-88-3P 406695-89-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis of unsatd. ketones from hydroxyadamantyl Me ketone via Claisen-Schmidt condensation of hydroxyadamantyl ketone and arom aldehydes)  
 RN 406695-84-9 CAPLUS  
 CN 2-Propen-1-one, 3-hydroxy-1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



RN 406695-85-0 CAPLUS  
 CN 2-Propen-1-one, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)-3-(2-thienyl)- (CA INDEX NAME)



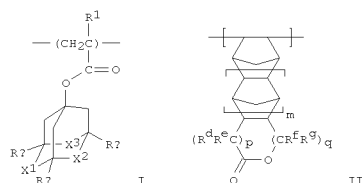
RN 406695-86-1 CAPLUS  
 CN 2-Propen-1-one, 3-amino-1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)-, (2Z)- (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
 REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

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L4 ANSWER 20 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 04 Sep 2001  
GI



AB Photoresist compns. contain polymers containing monomer units I and/or  
II (R1,  
Ra-Rg = H, Me; X1-X3 = CH2, CO2; at least one of X1-X3 is CO2; m, p, q =  
0-2) and photoacid generators. The compns. show good adhesion to  
substrates such as Si and can precisely form fine patterns in  
semiconductor manufacturing

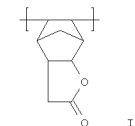
ACCESSION NUMBER: 2001:644598 CAPLUS  
DOCUMENT NUMBER: 135:218729  
TITLE: Lactone ring-containing polymers and resin  
compositions for photoresists  
INVENTOR(S): Gokochi, Toru; Okino, Takeshi; Asakawa, Koji;  
Shinoda,  
Naomi; Funaki, Katsunori; Tsutsumi, Kiyoharu; Horai,  
Akira  
PATENT ASSIGNEE(S): Toshiba Corp., Japan; Daicel Chemical Industries,  
Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001240625	A	20010904	JP 2000-49549	20000225

PRIORITY APPLN. INFO.: JP 2000-49549 20000225

IT 39917-38-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation of lactone ring-containing polymers for photoresists)

L4 ANSWER 21 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 10 Aug 2001  
GI



AB The invention relates to a polymeric compound for photoresists which  
comprises monomer units represented by formula I; and a resin  
composition for  
photoresists which comprises the polymeric compound and a photo-acid  
generator. The composition, which contains 3-(hydroxymethyl)-2-  
Norbornanecarboxylic acid  $\gamma$ -lactone based repeating unit, has high  
adhesion to substrates and can precisely form a fine pattern.

ACCESSION NUMBER: 2001:582183 CAPLUS  
DOCUMENT NUMBER: 135:160158  
TITLE: Polymeric compound for photoresist and resin  
composition for photoresist  
INVENTOR(S): Funaki, Yoshinori; Tsutsumi, Kiyoharu; Takaragi,  
Akira  
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
SOURCE: PCT Int. Appl., 120 pp.  
CODEN: FIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001057597	A1	20010809	WO 2001-JP515	20010126
W: KR, US				
RW: DE, FR, GB				
JP 2001215703	A	20010810	JP 2000-24527	20000201
EP 1172694	A1	20020116	EP 2001-949041	20010126
R: DE, FR, GB				
TW 538311	B	20030621	TW 2001-90101862	20010131
US 20020169266	A1	20021114	US 2001-937910	20011019
US 6552143	B2	20030422		
US 20040006189	A1	20040108	US 2003-375129	20030228
US 6806335	B2	20041019		

PRIORITY APPLN. INFO.: JP 2000-24527 A 20000201  
WO 2001-JP515 W 20010126  
US 2001-937910 A1 20011019

IT 39917-38-9  
RL: RCT (Reactant); RACT (Reactant or reagent)

L4 ANSWER 20 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



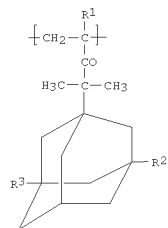
L4 ANSWER 21 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
(polymeric compd. for photoresist and resin compn. for photoresist)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

07/04/2008,10716012IIIIa.trn

L4 ANSWER 22 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 15 May 2001  
GI



AB The polymer is that having  $\geq 1$  adamantyl-substituted monomer unit I  
(R1 = H, Me; R2, R3 = H, OH). The photoresist composition contains the  
polymer and a photosensitive acid-generating agent. The photoresist composition,  
showing good etching resistance, is suitable for photolithog. in  
semiconductor device fabrication.

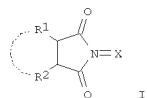
ACCESSION NUMBER: 2001:347119 CAPLUS  
DOCUMENT NUMBER: 134:346475  
TITLE: Adamantyl-containing polymer for photoresist and  
polymer composition for photoresist  
INVENTOR(S): Gokochi, Toru; Okino, Takeshi; Asakawa, Koji;  
Shinoda, Naomi; Funaki, Katsunori; Tsutsumi, Kiyoharu; Horai,  
Akira; Inoue, Keizo  
PATENT ASSIGNEE(S): Toshiba Corp., Japan; Daicel Chemical Industries,  
Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001131232	A	20010515	JP 1999-312329	19991102
TW 581939	B	20040401	TW 2000-89122996	20001101
PRIORITY APPLN. INFO.:			JP 1999-312329	A 19991102

L4 ANSWER 22 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
IT 39917-38-9P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);  
RACT (Reactant or reagent)  
(intermediate for monomer; adamantyl-containing polymer for  
etching-resistant photoresist for semiconductor device fabrication)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



L4 ANSWER 23 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 23 Jun 2000  
GI



AB Imide compound I (R1 and R2 are H, halogen alkyl, and etc., or are  
united to form a double bond or a ring, X is oxygen or hydroxyl) is a reaction  
catalyst for a stable radical-forming compound (including oxygen compds.  
having carbon-hydrogen bonds adjacent to the oxygen atom, carbonyl  
compds.

and compds. having hydrocarbon groups bearing methyne carbon) with a  
radical-scavenging compound (including unsatd. compds., compds. having  
hydrocarbon groups bearing methyne carbon) in the presence of mol.  
oxygen.

Thus, Et acrylate 3 mmol and 2-propanol 3 mL were reacted in the presence  
of N-hydroxyphthalimide 0.6 mmol and cobalt (II) acetate 0.015 mmol  
cobalt

(III) acetylacetate 0.045 mmol to give Et 2,4-dihydroxy-4-methylmetanate  
35%,  $\alpha$ -hydroxy- $\gamma$ , $\gamma$ -dimethylbutyrolactone 35% at  
the conversion of Et acrylate 81%.

ACCESSION NUMBER: 2000:421066 CAPLUS  
DOCUMENT NUMBER: 133:60353  
TITLE: preparation of organic compounds with imide catalysts  
INVENTOR(S): Ishii, Yasutaka; Iwahama, Takahiro; Nakano, Tatsuya  
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
SOURCE: PCT Int. Appl., 133 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035835	A1	20000622	WO 1999-JP6891	19991209
W: JP, KR, US				
RW: DE, FR, GB				
EP 1055654	A1	20001129	EP 1999-959710	19991209
EP 1055654	B1	20080220		
R: DE, FR, GB				
US 7183423	B1	20070227	US 2000-622001	20000922
PRIORITY APPLN. INFO.:			JP 1998-353621	A 19981211
			JP 1998-353622	A 19981211
			JP 1999-65651	A 19990311
			JP 1999-136340	A 19990517

L4 ANSWER 23 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
WO 1999-JP6891 W 19991209

OTHER SOURCE(S): MARPAT 133:60353  
IT 39917-38-9P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);  
RACT (Reactant or reagent)  
(preparation of organic compds. with imide catalysts)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



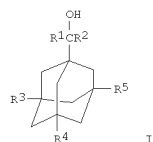
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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07/04/2008,10716012IIIIa.trn

L4 ANSWER 24 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 03 Dec 1999  
AB The compns. comprise polymers having units derived from an acid-sensitive compound selected from (meth)acrylic acid esters bearing specific alicyclic groups, e.g., adamantanyl group. The compns. have high resistance to etchants, become soluble upon irradiation with light, and can form a finer pattern. Thus, adding a solution of 1.2 mol i-PrMgI in dry Et2O to a solution of 1 mol adamantan-1-ylethan-1-one in dry THF at 10°, mixing for 6 h, and esterifying the resulting 1-(1-hydroxy-1,2-dimethylpropyl)adamantane with i-Pr acrylate in the presence of SnI2 gave 1-(1-acryloyloxy-1,2-dimethylpropyl)adamantane (I). Polymerizing I 50 with Me methacrylate 10, Bu acrylate 20 and methacrylic acid 20% using Bz2O2 gave a copolymer with weight-average mol. weight .apprx.5x103, 100 parts of which was combined with 15 parts triphenylphosphonium hexafluoroantimonate and PhMe solvent to give a photoresist.  
ACCESSION NUMBER: 1999:764004 CAPLUS  
DOCUMENT NUMBER: 132:12928  
TITLE: Acid-sensitive compounds for use in photoresist resin compositions  
INVENTOR(S): Nakano, Tatsuya  
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
SOURCE: PCT Int. Appl., 55 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961404	A1	19991202	WO 1999-JP2637	19990520
W: KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 2000136165	A	20000516	JP 1999-135623	19990517
JP 2003277446	A	20031002	JP 2003-30804	19990517
EP 1000924	A1	20000517	EP 1999-953334	19990520
R: DE, FR, GB				
EP 1445266	A2	20040811	EP 2004-8994	19990520
EP 1445266	A3	20040915		
EP 1445266	B1	20060503		
R: DE, FR, GB				
TW 476866	B	20020221	TW 1999-88108544	19990525
US 20030180662	A1	20030925	US 2003-386474	20030313
PRIORITY APPLN. INFO.:			JP 1998-143536	A 19980525
			JP 1998-244067	A 19980828
			JP 1999-135623	A3 19990517

L4 ANSWER 25 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 29 Oct 1999  
GI



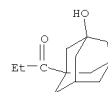
AB Title compds I (R1 is hydrogen or a hydrocarbon group; R2 is a hydrocarbon group having, at the binding site to the adjacent carbon atom, a carbon atom bearing at least one hydrogen atom bonded thereto; and R3, R4 and R5 are each hydrogen, optionally protected hydroxyl or the like, with the proviso that when R1 is hydrogen or Me and R2 is Me, at least one of the carbon atoms constituting the adamantane skeleton has protected hydroxyl or the like in a state bonded thereto and that when one of R1 and R2 is Me and the other is Et, the adamantane ring has at least one more substituent in addition to the HOCR1R2 group), useful as monomers, are prepared Thus, Grignard reaction of 1-acetyladamantane with i-PrMgBr gave 46% α-isopropyl-α-methyl-1-adamantanemethanol.  
ACCESSION NUMBER: 1999:691054 CAPLUS  
DOCUMENT NUMBER: 131:299244  
TITLE: Preparation of adamantanemethanol derivatives  
INVENTOR(S): Nakano, Tatsuya; Shimojitosyo, Hiroshi  
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
SOURCE: PCT Int. Appl., 72 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9954271	A1	19991028	WO 1999-JP2110	19990421
W: JP, KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 990632	A1	20000405	EP 1999-917071	19990421
R: DE, FR, GB				
US 6344590	B1	20020205	US 1999-468326	19991221
US 20020016516	A1	20020207	JP 1998-128296	A 19980421
PRIORITY APPLN. INFO.:			JP 1998-285632	A 19981007

L4 ANSWER 24 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
EP 1999-953334 A3 19990520  
WO 1999-JP2637 W 19990520  
US 2000-463059 A3 20000119  
IT 39917-38-9P 251564-79-1P, 1-Hydroxy-3-(1-oxopropyl)adamantane  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; manufacture of acrylic polymers bearing acid-sensitive adamantyl groups for use in photoresists with good resistance to etchants)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



RN 251564-79-1 CAPLUS  
CN 1-Propanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 25 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
JP 1999-72669 A 19990317  
WO 1999-JP2110 W 19990421

OTHER SOURCE(S): CASREACT 131:299244; MARPAT 131:299244  
IT 39917-38-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of adamantanemethanol derivs.)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

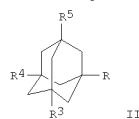
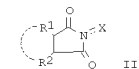
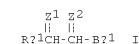
07/04/2008,10716012IIIIa.trn

L4 ANSWER 26 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 08 Sep 1999  
AB By reacting 1-adamantanecarbonyl chloride with di-Me malonate in the presence of solid NaOH, di-Me (1-adamantanecarbonyl)malonate, an intermediate product in the synthesis of (1-adamantyl) Me ketone, was prepared. The use of NaOH instead of Mg in the synthesis of ketones from acyl chlorides and malonic esters is restricted by the hydrolytic instability of acyl chlorides. At the same time, with NaOH instead of Mg the synthesis is much facilitated and the yield of the target (1-adamantyl) Me ketone is improved. Resistance of an acid to hydrolysis can apparently be measured by its dissociation constant. Comparison of the dissociation consts. of 3-chloro- and 3-bromo-1-adamantanecarboxylic acids with that of 1-adamantanecarboxylic acid [kd + 107: 1.55 (1-AdCOOH), 6.46 (3-Br-1-AdCOOH), 7.13 (3-Cl-1-AdCOOH)] allows the approach to be extended to 3-halo-1-adamantanecarboxylic acids. Aiming at developing methods for synthesis of Me 3-R-1-adamantyl ketone, haloadamantylacyl bromide or chloride was reacted with di-Me malonate in the presence of NaOH and isolated di-Me (3-halo-1-adamantanecarbonyl)malonates. The composition and structure of the products were proved by <sup>1</sup>H and IR spectroscopy and elemental anal.  
ACCESSION NUMBER: 1999:564300 CAPLUS  
DOCUMENT NUMBER: 131:299239  
TITLE: Reaction of 3-halo-1-adamantanecarbonyl chlorides with dimethyl malonate  
AUTHOR(S): Makarova, N. V.; Moiseev, I. K.; Zentsova, M. N.  
CORPORATE SOURCE: Samara State Technical University, Samara, Russia  
SOURCE: Russian Journal of General Chemistry (Translation of Zhurnal Obshchei Khimii) (1999), 69(4), 675-676  
CODEN: RJGCEK; ISSN: 1070-3632  
PUBLISHER: MAIK Nauka/Interperiodica Publishing  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 131:299239  
IT 39917-38-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(reaction of haloadamantanecarbonyl chlorides with di-Me malonate in preparation of adamantyl Me ketone)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 24 Aug 1999  
GI



AB Acylating agents comprising: (A) a 1,2-dicarbonyl compound or its hydroxy-reduction derivative (I; R<sub>1</sub>, R<sub>2</sub> = C1-4 alkyl, cycloalkyl, aryl; or R<sub>1</sub> and R<sub>2</sub> are bonded to each other to form together with the adjacent two carbon atoms, a ring; Z<sub>1</sub>, Z<sub>2</sub> = O, OH); (B) an enzyme; and (C) at least one compound selected from among (c1) metal compds. and (c2) imide compds. such as N-hydroxyphthalimide (II; R<sub>1</sub>, R<sub>2</sub> = H, halo, alkyl, aryl, cycloalkyl, OH, alkoxy, CO<sub>2</sub>H, alkoxy-carbonyl, acyl; or R<sub>1</sub> and R<sub>2</sub> are bonded to each other to form a double bond or an aromatic or nonarom. ring optionally bonded to one or two imide groups; X = O, OH). As the 1,2-dicarbonyl compound or its hydroxy-reduction derivative (A), use may be made of biacetyl, 2,3-butanediol, etc. As the metal compds. (c1), use may be made of a cobalt compound such as cobalt acetate. An acyl group can be efficiently introduced into a methine carbon atom by treating a compound carrying a methine carbon atom such as an adamantane derivative [III; R = acyl, R<sub>5</sub>, R<sub>4</sub>, R<sub>3</sub> = H, halo, alkyl, (un)protected OH, CH<sub>2</sub>OH, NH<sub>2</sub>, or CO<sub>2</sub>H, NO<sub>2</sub>, acyl; the carbon atoms constituting the adamantane skeleton other than the bridge head carbon optionally possess substituents] by the above acylating agent. Thus, a mixture of adamantane 3, biacetyl 18, cobalt acetate 0.015 mmol, 3 mL, AcOH was stirred under oxygen atmospheric at 60° for 4 h to give 1-acetyladamantane 50, 1,3-diacetyladamantane 23, 1-acetyl-3-adamantanol 4, 1-adamantanol 3, and 2-adamantanone 3% with 85% conversion of adamantane.

L4 ANSWER 26 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
ACCESSION NUMBER: 1999:529116 CAPLUS  
DOCUMENT NUMBER: 131:157613  
TITLE: Acylating agents, acylation of nonactivated methine carbon with the use of the same and adamantane derivatives  
INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya; Hirai, Naruhisa  
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
SOURCE: PCT Int. Appl., 82 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941219	A1	19990819	WO 1999-JP567	19990210
W: US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11335304	A	19991207	JP 1998-353620	19981211
EP 990634	A1	20000405	EP 1999-902870	19990210
R: DE, FR, GB				
US 6429314	B1	20020806	US 1999-402898	19991013
PRIORITY APPLN. INFO.:			JP 1998-48880	A 19980213
			JP 1998-100458	A 19980327
			JP 1998-353620	A 19981211
			WO 1999-JP567	W 19990210

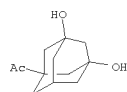
OTHER SOURCE(S): CASREACT 131:157613; MARPAT 131:157613  
IT 39917-38-9P 216582-03-5P, 1-Acetyl-3,5-adamantanediol  
237749-98-3P 237749-99-4P 237750-01-5P  
237750-23-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(acylating agents containing dicarbonyl compound, imide, and metal compound for acylation of nonactivated methine carbon such as adamantane)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



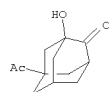
RN 216582-03-5 CAPLUS  
CN Ethanone, 1-(3,5-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)

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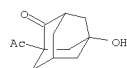
L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



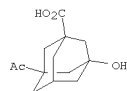
RN 237749-98-3 CAPLUS  
CN Tricyclo[3.3.1.1.3,7]decanone, 5-acetyl-1-hydroxy- (9CI) (CA INDEX NAME)



RN 237749-99-4 CAPLUS  
CN Tricyclo[3.3.1.1.3,7]decanone, 1-acetyl-5-hydroxy- (9CI) (CA INDEX NAME)



RN 237750-01-5 CAPLUS  
CN Tricyclo[3.3.1.1.3,7]decane-1-carboxylic acid, 3-acetyl-5-hydroxy- (CA INDEX NAME)



RN 237750-23-1 CAPLUS  
CN Ethanone, 1,1'-(5-hydroxytricyclo[3.3.1.1.3,7]decane-1,3-diyl)bis- (9CI) (CA INDEX NAME)

L4 ANSWER 28 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 21 Jul 1999

AB Exposure of a mixture of adamantane and biacetyl under O<sub>2</sub> in the presence of Co(OAc)<sub>2</sub> (0.1 mol%) in AcOH led to 1-acetyladamantane (47%) and 1,3-diacetyladamantane (20%) as major products along with small amts. of 1-adamantanol (4%) and 2-adamantanone (3%).

ACCESSION NUMBER: 1999:447140 CAPLUS  
DOCUMENT NUMBER: 131:271649  
TITLE: Catalytic radical acetylation of adamantanes with biacetyl by a cobalt salt under atmospheric dioxygen  
AUTHOR(S): Kishi, Arata; Kato, Susumu; Sakaguchi, Satoshi; Ishii, Yasutaka

CORPORATE SOURCE: Research Center, Faculty of Engineering and High Technology, Department of Applied Chemistry, Kansai University, Suita, Osaka, Japan

SOURCE: Chemical Communications (Cambridge) (1999), (15), 1421-1422  
CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 39917-38-9P, 1-Acetyl-3-hydroxyadamantane  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

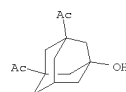
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

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L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 16 Dec 1998

AB High yields of polymerizable adamantane derivs. each having at least one polymerizable unsatd. group are produced by the esterification or amidation of a (1-, 3-, 5- or/and 7-substituted; preferably >2 of substituents are HO, COOH or amino groups) adamantane compound with a polymerizable unsatd. group-containing compound (e.g. an alc., a carboxylic acid or an amine) in the presence of a catalyst comprising a Group-III element compound, e.g., Sm compound. Thus, heating adamantane 10 with N-hydroxyphthalimide 1, V(acac)<sub>3</sub> 0.03 and Mn(acac)<sub>3</sub> 0.02 mmol in 25 mL AcOH at 75° for 6 h gave a mixed product containing 1-adamantanol 37, 1,3-adamantanediol (I) 35, 1,3,5-adamantanetriol 5 and 1,3,5,7-adamantanetetraol 4%. Mixing I 0.168 with SmI 0.040 and vinyl acrylate 0.216 g in dioxane at 60° for 6 gave an adamantyl diacrylate at 97% yield.

ACCESSION NUMBER: 1998:789116 CAPLUS  
DOCUMENT NUMBER: 130:38780  
TITLE: Photochemically or thermally polymerizable adamantane derivatives and process for producing the same  
INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya; Hirai, Naruhisa  
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
SOURCE: PCT Int. Appl., 82 pp.  
CODEN: FIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852902	A1	19981126	WO 1998-JP2085	19980512
W: KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11035522	A	19990209	JP 1998-106364	19980416
EP 915077	A1	19990512	EP 1998-919559	19980512
EP 915077	B1	20041117		
R: DE, FR, GB				
TW 498080	B	20020811	TW 1998-87107704	19980519
US 6235851	B1	20010522	US 1999-214724	19990111
KR 2000029498	A	20000525	KR 1999-700524	19990122
PRIORITY APPLN. INFO.:			JP 1997-133657	A 19970523
			WO 1998-JP2085	W 19980512

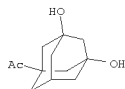
OTHER SOURCE(S): MARPAT 130:38780  
IT 39917-38-9P, 1-Acetyl-3-hydroxyadamantane 216582-03-5P, 1-Acetyl-3,5-adamantanediol  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; manufacture and reaction in manufacture of photochem. or thermally polymerizable adamantane derivs.)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)

07/04/2008,10716012IIIIa.trn

L4 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

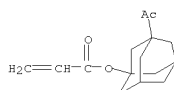


RN 216582-03-5 CAPLUS  
CN Ethanone, 1-(3,5-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)

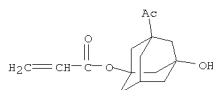


IT 216582-05-7P, 1-Acetyl-7-acryloyloxyadamantane  
216582-06-8P, 1-Acetyl-3-hydroxy-5-acryloyloxyadamantane  
RL: IMP (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
(monomers; manufacture of photochem. or thermally polymerizable adamantane derivs.)

RN 216582-05-7 CAPLUS  
CN 2-Propenoic acid, 3-acetyltricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



RN 216582-06-8 CAPLUS  
CN 2-Propenoic acid, 3-acetyl-5-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 30 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 01 Aug 1997

AB The crystal structures of the adamantane derivs., 1-acetyl-3-adamantanol, C12H18O2, (4), and 3-hydroxyadamantane-1-carboxylic acid, C11H16O3, (5), were determined by x-ray diffraction. Both structures show extensive intermol.

H bonding involving the hydroxyl and acetyl groups in compound (4), and the hydroxyl and carboxyl groups in compound (5). Crystallog. data and atomic coordinates are given.

ACCESSION NUMBER: 1997:480226 CAPLUS  
DOCUMENT NUMBER: 127:102048  
TITLE: 1-Acetyl-3-hydroxyadamantane and 1-Carboxy-3-hydroxyadamantane  
AUTHOR(S): Rath, Nigam P.; Gu, Hong; Murray, Robert W.  
CORPORATE SOURCE: Dep. Chemistry, Univ. Missouri-St. Louis, St. Louis, MO, 63121, USA  
SOURCE: Acta Crystallographica, Section C: Crystal Structure Communications (1997), C53(7), 944-946  
CODEN: ACSCEE; ISSN: 0108-2701

PUBLISHER: Munksgaard  
DOCUMENT TYPE: Journal

LANGUAGE: English  
IT 39917-38-9, 1-Acetyl-3-hydroxyadamantane

RL: PRP (Properties)  
(crystal structure of)

RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L4 ANSWER 31 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 19 Aug 1995

AB The relative rates of reaction of a series of p-substituted cumenes with dimethyldioxirane have been studied. The products are the corresponding cumyl alcs. Treatment of the rate data with the Hammett substituent consts. reveals that the insertion reaction is an electrophilic process with  $\rho = -2.76$ . Similar treatment of the data with the Brown-Okamoto substituent consts. gives  $\rho^+ = -1.61$ . The second-order rate consts. for the reaction of a series of substituted adamantanes with dimethyldioxirane were also determined. Again, the products are the corresponding adamantanol. The rate consts. were correlated with several types of substituent consts. The best correlations were obtained with the

Taft  $\sigma^*$  and  $\sigma^I$  consts. which gave  $\rho^* = -1.08$  and  $\rho^I = -2.39$ , resp. Thus, the insertion reaction in this aliphatic system is also electrophilic.

ACCESSION NUMBER: 1995:746912 CAPLUS  
DOCUMENT NUMBER: 123:313186  
TITLE: Linear Free Energy Relationship Studies of the Dimethyldioxirane C-H Bond Insertion Reaction  
AUTHOR(S): Murray, Robert W.; Gu, Hong  
CORPORATE SOURCE: Department of Chemistry, University of Missouri, St. Louis, MO, 63121, USA  
SOURCE: Journal of Organic Chemistry (1995), 60(17), 5673-7  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

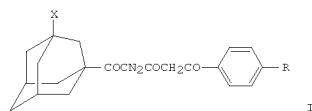
IT 39917-38-9P, 1-Acetyl-3-hydroxyadamantane  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(insertion reaction of adamantanes with dimethyldioxirane)

RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)

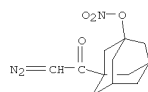


07/04/2008,10716012IIIIa.trn

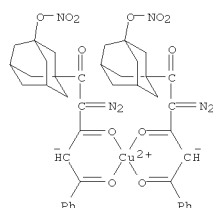
L4 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 07 Aug 1993  
GI



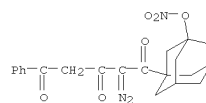
AB 2-Diazo-1-adamantyl-5-aryl-1,3,5-pentanetriones I (R = H, Me, MeO, Br, Cl,  
X = H, Cl, Br, NO<sub>2</sub>, ONO<sub>2</sub>) and also the products of their thermal cyclization: 3-(1-adamantylcarbonyl)-5-arylpyrazoline-4-ones, 3-(1-adamantylcarbonyl)-5-aryl-2,3-dihydrofuran-2-ones and 2-(1-adamantylcarbonyl)-5-aryl-2,3-dihydrofuran-3-ones were prepared by reaction of 1-adamantylcarbonyldiazomethanes with 5-aryl-2,3-dihydrofuran-2,3-diones. The formation of furanones results from thermolysis of the diazopentanetriones during their preparation  
ACCESSION NUMBER: 1993:449009 CAPLUS  
DOCUMENT NUMBER: 119:49009  
TITLE: Chemistry of oxalyl derivatives of methyl ketones. Synthesis and thermolysis of 2-diazo-1-adamantyl-5-aryl-1,3,5-pentanetriones  
AUTHOR(S): Andreichikov, Yu. S.; Kolobova, M. P.  
CORPORATE SOURCE: Perm. Gos. Farm. Inst., Perm, Russia  
SOURCE: Zhurnal Organicheskoi Khimii (1992), 28(8), 1692-9  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 119:49009  
IT 73599-86-7  
RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with arylfuranones)  
RN 73599-86-7 CAPLUS  
CN Ethanone, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]- (CA INDEX NAME)



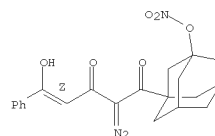
L4 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
IT 78227-77-7P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and chelation by copper halides)  
RN 78227-77-7 CAPLUS  
CN 1,3,5-Pentanetrione, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]-5-phenyl- (CA INDEX NAME)

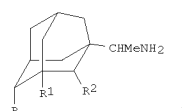


IT 148146-34-3P 148570-49-4P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 148146-34-3 CAPLUS  
CN 4-Pentene-1,3-dione, 2-diazo-5-hydroxy-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]-5-phenyl-, (Z)- (9CI) (CA INDEX NAME)  
Double bond geometry as shown.



RN 148570-49-4 CAPLUS  
CN Copper, bis[2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]-5-phenyl-1,3,5-pentanetrionato-O<sub>3</sub>,O<sub>5</sub>]- (9CI) (CA INDEX NAME)

L4 ANSWER 33 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 03 Aug 1990  
GI



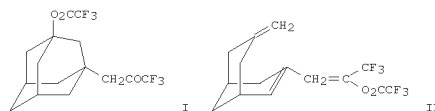
AB The hydroxy metabolites of rimantadine I (R = OH, R<sub>1</sub> = R<sub>2</sub> = H; R = R<sub>1</sub> = H, R<sub>2</sub> = OH; R = R<sub>2</sub> = H, R<sub>1</sub> = OH) were synthesized and compared to amantadine and rimantadine for their ability to inhibit the replication of influenza viruses in vitro. All 3 metabolites were inhibitory to wild-type influenza A viruses (H3N2 and H1N1). In particular, 2-hydroxyrimantadine I (R = R<sub>1</sub> = H, R<sub>2</sub> = OH) showed similar activity to amantadine, but the 3- and 4-hydroxy metabolites, both of which are found in rimantadine-treated patients, showed only modest inhibitory activity. A rimantadine-resistant isolate of influenza A virus exhibited cross-resistance to amantadine and to each of the metabolites I. None of the compds. was effective against influenza B virus.  
ACCESSION NUMBER: 1990:440007 CAPLUS  
DOCUMENT NUMBER: 113:40007  
TITLE: Synthesis and antiviral activity of metabolites of rimantadine  
AUTHOR(S): Manchand, Percy S.; Cerruti, Richard L.; Martin, Joseph A.; Hill, Christopher H.; Merrett, John H.; Keech, Elizabeth; Belshé, Robert B.; Connell, Edward V.; Sim, Iain S.  
CORPORATE SOURCE: Dep. Chem. Res., Hoffmann-La Roche Inc., Nutley, NJ, 07110, USA  
SOURCE: Journal of Medicinal Chemistry (1990), 33(7), 1992-5  
CODEN: JMCMAR; ISSN: 0022-2623  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 113:40007  
IT 39917-38-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and oxidation of)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)- (CA INDEX NAME)

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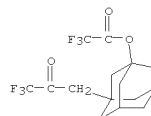
L4 ANSWER 33 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 34 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 06 Jul 1990  
GI



AB The title reaction in dry CH<sub>2</sub>Cl<sub>2</sub> containing pyridine at 20° gave 15% adamantane I and 45% bicyclononene II.  
ACCESSION NUMBER: 1990:405758 CAPLUS  
DOCUMENT NUMBER: 113:5758  
TITLE: Reaction of 3,7-dimethylenebicyclo[3.3.1]nonane with trifluoroacetic anhydride  
AUTHOR(S): Khotkevich, A. B.; Soloshonok, V. A.; Kukhar, V. P.  
CORPORATE SOURCE: Inst. Bioorg. Khim., Kiev, USSR  
SOURCE: Zhurnal Organicheskoi Khimii (1989), 25(10), 2240-1  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 113:5758  
IT 127510-27-4P  
RL: FORM (Formation, nonpreparative); PREP (Preparation) (formation of, in reaction of dimethylenebicyclononane with trifluoroacetic anhydride)  
RN 127510-27-4 CAPLUS  
CN Acetic acid, trifluoro-, 3-(3,3,3-trifluoro-2-oxopropyl)tricyclo[3.3.1.1.3,7]dec-1-yl ester (9CI) (CA INDEX NAME)



L4 ANSWER 35 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 20 Aug 1989

AB 14CH<sub>3</sub>SO<sub>2</sub>Ph (I) was prepared from Ba14CO<sub>3</sub> in four steps in 70% overall yield.

The dianion of I was treated with a variety of esters RCO<sub>2</sub>Me to produce keto sulfones RCO14CH<sub>2</sub>SO<sub>2</sub>Ph, which were subsequently reduced with Al/Hg

OR

Na/Hg to provide labeled Me ketones RCO14CH<sub>3</sub>. These ketones may be transformed into more complex structures in which the labeled carbon is secured within the carbon skeleton. The dianion of I was also condensed with di-Et carbonate to yield labeled Et phenylsulfonylacetate. After saponification and reduction of the carboxylate salt with Na/liqNH<sub>3</sub>, sodium

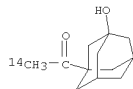
[2-14C]acetate was obtained, thus providing a convenient synthesis of [2-14C]acetic acid.

ACCESSION NUMBER: 1989:456589 CAPLUS  
DOCUMENT NUMBER: 111:56589  
TITLE: [14C]methyl phenyl sulfone: a novel reagent for general and facile carbon-14 labeling  
AUTHOR(S): Choudhry, Satish C.; Serico, Lucia; Cupano, Joseph  
CORPORATE SOURCE: Chem. Res. Dep., Hoffmann-La Roche, Inc., Nutley, NJ, 07110, USA  
SOURCE: Journal of Organic Chemistry (1989), 54(15), 3755-7  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 111:56589  
IT 121706-33-0

RL: RCT (Reactant); RACT (Reactant or reagent) (oximation-hydrogenation of)

RN 121706-33-0 CAPLUS

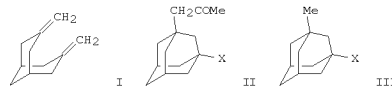
CN Ethanone-2-14C, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 36 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 04 Mar 1989

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AB Conjugate acylation of the title compound I by Ac<sub>2</sub>O, MeCN, and ClCH<sub>2</sub>CN in CH<sub>2</sub>Cl<sub>2</sub> containing AcBF<sub>4</sub> gave mixts. containing acetonyladamantanes II (X = AcO,

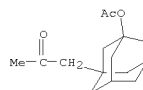
AcNH, ClCH<sub>2</sub>CONH) and acyladamantanes III.

ACCESSION NUMBER: 1989:74894 CAPLUS  
DOCUMENT NUMBER: 110:74894  
TITLE: Conjugate acylation of 3,7-dimethylenebicyclo[3.3.1]nonane  
AUTHOR(S): Gubernatorov, V. K.; Sokolenko, V. A.; Gridnev, I. D.;  
CORPORATE SOURCE: Balenkova, E. S.  
SOURCE: Inst. Khim. Khim. Tekhnol., Krasnoyarsk, USSR  
Zhurnal Organicheskoi Khimii (1988), 24(4), 892-4  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 110:74894  
IT 118647-95-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

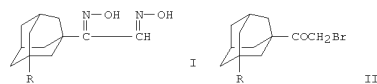
RN 118647-95-3 CAPLUS

CN 2-Propanone, 1-[3-(acetyloxy)tricyclo[3.3.1.1.3,7]dec-1-yl]- (CA INDEX NAME)

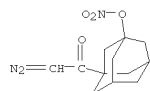


07/04/2008,10716012IIIIa.trn

L4 ANSWER 37 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 31 Oct 1987  
GI

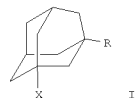


AB Title compds. I (R = H, Me, Et, Cl, 4-MeC6H4) were prepared by treatment of bromomethyl ketones II with NH<sub>2</sub>OH in EtOH. II (R = ONO<sub>2</sub>) underwent hydrolysis to give I (R = OH). All six oximes were dibenzoylated with EtCl·C<sub>6</sub>H<sub>5</sub>N in C<sub>6</sub>H<sub>6</sub>.  
ACCESSION NUMBER: 1987:553970 CAPLUS  
DOCUMENT NUMBER: 107:153970  
ORIGINAL REFERENCE NO.: 107:24765a,24768a  
TITLE: Synthesis and properties of dioximes of the adamantane series  
AUTHOR(S): Moliseev, I. K.; Kalinina, M. I.; Zemtsova, M. N.; Trakhtenberg, P. L.  
CORPORATE SOURCE: Kuibyshev. Politekh. Inst., Kuibyshev, USSR  
SOURCE: Zhurnal Organicheskoi Khimii (1986), 22(11), 2292-6  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 107:153970  
IT 73599-86-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and conversion into bromide)  
RN 73599-86-7 CAPLUS  
CN Ethanone, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.1.3,7]dec-1-yl]- (CA INDEX NAME)



IT 69752-09-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and oximation of)  
RN 69752-09-6 CAPLUS

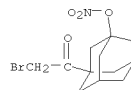
L4 ANSWER 38 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 29 Sep 1984  
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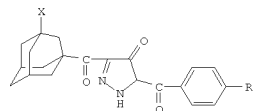
AB Reducing 3-chloro-1-cyanoadamantane (I; R = cyano, X = Cl) with LiAlH<sub>4</sub> in Et<sub>2</sub>O gave 70% I (R = CH<sub>2</sub>NH<sub>2</sub>·HCl, X = Cl) (II), which was hydrolyzed with 10% aqueous HCl to give 78% I (R = CH<sub>2</sub>NH<sub>2</sub>, X = OH) (III) after neutralization. Treating I (R = CO<sub>2</sub>H, X Br) with SOCl<sub>2</sub> and then EtOMgCH(CO<sub>2</sub>Et)<sub>2</sub> then refluxing C<sub>6</sub>H<sub>6</sub> gave, after acidic hydrolysis, 31% I (R = COMe, X = OH), which gave 86% I (R = CHMe·NOH, X = OH) with HONH<sub>2</sub> and then 70% I (R = CHMeNH<sub>2</sub>, X = OH) (IV) on reduction with Raney Ni.  
Treating III, IV and I (R = NH<sub>2</sub>, X = OH) with 63% aqueous HBr gave 50-82% I (R = ZNH<sub>2</sub>·HBr, X = Br; Z = CH<sub>2</sub>, CHMe, bond, resp.), and IV reacted with concentrated HCl to give 60% I (R = CHMeNH<sub>2</sub>·HCl, X = Cl). II had the greatest virucidal activity of the compds. prepared  
ACCESSION NUMBER: 1984:510401 CAPLUS  
DOCUMENT NUMBER: 101:110401  
ORIGINAL REFERENCE NO.: 101:16845a,16848a  
TITLE: Synthesis and antiviral activity of some 3-halo derivatives of 1-aminoadamantane  
AUTHOR(S): Kozhushko, G. I.; Mizhdokh, O.; Votyakov, V. I.; Rusyaev, V. A.; Danilenko, V. F.; Stepanova, G. Y.; Danilenko, G. I.  
CORPORATE SOURCE: Inst. Org. Chem., Kiev, USSR  
SOURCE: Farmatsevtichnii Zhurnal (Kiev) (1984), (1), 37-40  
CODEN: FRZKAP; ISSN: 0367-3057  
DOCUMENT TYPE: Journal  
LANGUAGE: Ukrainian  
OTHER SOURCE(S): CASREACT 101:110401  
IT 39917-38-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oximation of)  
RN 39917-38-9 CAPLUS  
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



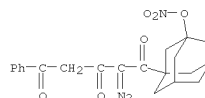
L4 ANSWER 37 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
CN Ethanone, 2-bromo-1-[3-(nitrooxy)tricyclo[3.3.1.1.3,7]dec-1-yl]- (CA INDEX NAME)



L4 ANSWER 39 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 12 May 1984  
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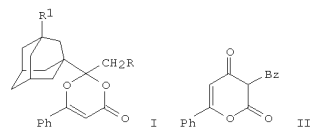
AB Title compds. I (X = H, R = Cl; X = ONO<sub>2</sub>, R = H) were prepared by cyclizing the corresponding 2-diazo-1-adamantyl-5-aryl-1,3,5-pentanetrione in the presence of 1 equivalent NiCl<sub>2</sub> in 1:1 CHCl<sub>3</sub>-alc. solvent at 20-3° for 20-30 h.  
ACCESSION NUMBER: 1983:505243 CAPLUS  
DOCUMENT NUMBER: 99:105243  
ORIGINAL REFERENCE NO.: 99:16205a,16208a  
TITLE: 3-(1-Adamantoyl)-5-arylpyrazolin-4-ones  
INVENTOR(S): Andreichikov, Yu. S.; Sivkova, M. P.  
PATENT ASSIGNEE(S): Perm Pharmaceutical Institute, USSR  
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1983, (10), 104-5.  
CODEN: URXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Russian  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:  
PATENT NO. KIND DATE APPLICATION NO. DATE  
SU 1004373 A1 19830315 SU 1981-3374499 19811228  
PRIORITY APPLN. INFO.: SU 1981-3374499 19811228  
OTHER SOURCE(S): CASREACT 99:105243  
IT 78227-77-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclization of, pyrazolinone by)  
RN 78227-77-7 CAPLUS  
CN 1,3,5-Pentanetrione, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.1.3,7]dec-1-yl]-5-phenyl- (CA INDEX NAME)



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L4 ANSWER 39 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

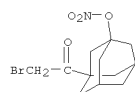
L4 ANSWER 40 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 12 May 1984  
GI



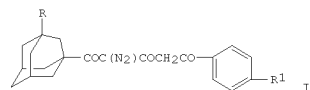
AB Adamantane derivs. I [R = H, Cl, Br, ONO2, OSO2OR1 (R1 = adamantyldioxinmethyl derivative), R1 = H, Br, NO2, Ph, ONO2] were prepared in 29-78% yields by treatment of the corresponding adamantyl Me ketone with 5-phenyl-2,3-dihydro-2,3-furandione under thermal decarbonylation conditions. Addnl. obtained was pyrandione II via dimerization of the benzoylketene.

ACCESSION NUMBER: 1983:72015 CAPLUS  
DOCUMENT NUMBER: 98:72015  
ORIGINAL REFERENCE NO.: 98:11027a,11030a  
TITLE: Chemistry of oxalyl derivatives of methyl ketones.  
28.  
Reaction of carbonyl compounds of adamantane with 5-phenyl-2,3-dihydrofuran-2,3-dione  
AUTHOR(S): Andreichikov, Yu. S.; Sivkova, M. P.; Shapet'ko, N. N.  
CORPORATE SOURCE: Perm. Gos. Farm. Inst., Perm, 614600, USSR  
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1982), (10), 1312-15  
CODEN: KGSSAQ; ISSN: 0453-8234  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 98:72015  
IT 69752-09-6  
R1: RCT (Reactant); RACT (Reactant or reagent)  
(cycloaddn. reaction of, with dihydrophenylfuran-2,3-dione)  
RN 69752-09-6 CAPLUS  
CN Ethanone, 2-bromo-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]- (CA INDEX NAME)

L4 ANSWER 40 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 41 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 12 May 1984  
GI

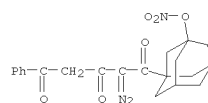


AB Title compds. I (R = H, R1 = H, Me, MeO; R = NO2, nitrate, R1 = H) were prepared by refluxing (1-adamantylcarbonyl)diazomethane with 5-aryl-2,3-furandiones in CCl4 for 1.5-2 h.

ACCESSION NUMBER: 1981:442493 CAPLUS  
DOCUMENT NUMBER: 95:42493  
ORIGINAL REFERENCE NO.: 95:7269a,7272a  
TITLE: 2-Diazo-1-adamantyl-5-aryl-1,3,5-pentanetriones  
INVENTOR(S): Andreichikov, Yu. S.; Sivkova, M. P.  
PATENT ASSIGNEE(S): Perm Pharmaceutical Institute, USSR  
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obratzy, Tovarnye Znaki 1981, (9), 89.  
CODEN: URXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Russian  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 810678	A1	19810307	SU 1979-2758178	19790404
PRIORITY APPLN. INFO.:			SU 1979-2758178	A 19790404

OTHER SOURCE(S): CASREACT 95:42493  
IT 78227-77-7P  
R1: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 78227-77-7 CAPLUS  
CN 1,3,5-Pentanetrione,  
2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]-  
5-phenyl- (CA INDEX NAME)



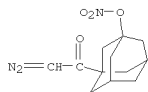
07/04/2008,10716012IIIIa.trn

L4 ANSWER 42 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 12 May 1984  
AB The polarog. half-wave potentials and limiting currents of 9 RCOCHN2 (R = adamantyl, 3-substituted adamantyl) were determined as a function of pH.

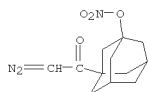
In 50% aqueous alc. 2 cathodic waves were obtained; the 1st had diffusion and the 2nd kinetic character. The reduction produced an oxo imine in the 1st step and a Me ketone in the 2nd. The substituents in position 3 had little effect on the ease of electroredn. of the diazo group.

ACCESSION NUMBER: 1980:567279 CAPLUS  
DOCUMENT NUMBER: 93:167279  
ORIGINAL REFERENCE NO.: 93:26627a,26630a  
TITLE: Polarographic reduction of adamantoyldiazomethane derivatives  
AUTHOR(S): Gomza, L. D.; Sivkova, M. P.; Veikhman, G. A.; Legotkina, G. I.; Andreichikov, Yu. S.  
CORPORATE SOURCE: USSR  
SOURCE: Zhurnal Obshchei Khimii (1980), 50(5), 1139-43  
CODEN: ZOKH44; ISSN: 0044-460X  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
IT 73599-86-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(polarog. reduction of)

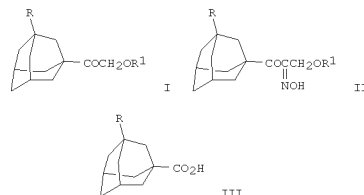
RN 73599-86-7 CAPLUS  
CN Ethanone, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]- (CA  
INDEX NAME)



L4 ANSWER 43 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 43 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 12 May 1984  
GI



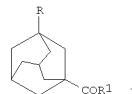
AB Adamantane ketones I (R = H, Cl, Br, iodo, Ph, R1 = H; R = Cl, Br, R1 = Et) and adamantane oximes II (R = H, Cl, Br, iodo) were prepared from the corresponding III. III were converted into the acid chlorides, which

were treated with CH2N2 or MeCHN2 to give the diazo derivs., which underwent decomposed in acidic H2O or EtOH to give I; some I were converted into oximes II. I and II were tested as antimicrobials and antispasmodics.

ACCESSION NUMBER: 1980:197989 CAPLUS  
DOCUMENT NUMBER: 92:197989  
ORIGINAL REFERENCE NO.: 92:32063a,32066a  
TITLE: Synthesis and biological activity of adamantane derivatives  
AUTHOR(S): Fridman, A. L.; Sivkova, M. P.; Zalesov, V. S.; Dolbitkin, K. V.; Moiseev, I. K.; Doroshenko, R. I.; Manzhelevskaya, E. V.  
CORPORATE SOURCE: Perm. Farm. Inst., Perm, USSR  
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1979), 13(12), 24-31  
CODEN: KHFZAN; ISSN: 0023-1134  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 92:197989  
IT 73599-86-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and solvolytic decomposition of)  
RN 73599-86-7 CAPLUS  
CN Ethanone, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]- (CA  
INDEX NAME)

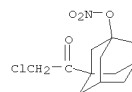
L4 ANSWER 44 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 12 May 1984  
GI



AB 35Cl and 79Br NQR data were obtained for I [R = H, Cl, Br, iodo, F, Ph, NO2, CNO2, p-tolyl, 3,4-xylyl, (O2N)3C; R1 = Cl, CH2Cl, CH2Br] and NMR data were also obtained for the exocyclic CH2 group of I (same R; R1 = CH2Cl, CH2Br). Correlation of the NQR frequencies with  $\sigma^+$  consts. yielded straight lines with pos. slopes for electron-accepting R substituents and sep. lines with neg. slopes for R = H, Ph, p-tolyl and 3,4-xylyl. The concentration and temperature effects on the NMR and NQR

data indicate intermol. association, especially for I containing electron-accepting R substituents.

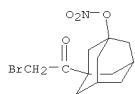
ACCESSION NUMBER: 1979:151397 CAPLUS  
DOCUMENT NUMBER: 90:151397  
ORIGINAL REFERENCE NO.: 90:24053a,24056a  
TITLE: Study of adamantanecarboxylic chlorides and  $\alpha$ -halomethyl adamantyl ketones  
AUTHOR(S): Petukhov, S. A.; Vakhnin, M. I.; Sivkova, M. P.  
CORPORATE SOURCE: Perm. Gos. Univ., Perm, USSR  
SOURCE: Zhurnal Fizicheskoi Khimii (1979), 53(1), 122-5  
CODEN: ZFKHA9; ISSN: 0044-4537  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
IT 69752-02-9 69752-09-6  
RL: PRP (Properties)  
(NQR of)  
RN 69752-02-9 CAPLUS  
CN Ethanone, 2-chloro-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]- (CA  
INDEX NAME)



RN 69752-09-6 CAPLUS  
CN Ethanone, 2-bromo-1-[3-(nitrooxy)tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl]- (CA  
INDEX NAME)

07/04/2008,10716012IIIIa.trn

L4 ANSWER 44 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 45 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 12 May 1984  
 AB The mechanism of photoacetylation of adamantanes with biacetyl was discussed. The reaction proceeded via triplet biacetyl and had a large  $\rho^*$  value (-0.71). Thermolysis of tert-Bu 1-adamantaneperoxydicarboxylate in biacetyl gave 1-acetyladamantane while tert-Bu 2-adamantaneperoxydicarboxylate gave both 1- and 2-acetyladamantanes. The exclusive bridgehead substitution in the present photoacetylation was not determined by the radical transfer step, but mostly by the regioselective abstraction of the bridge hydrogen by triplet biacetyl, probably owing to the large nonbonded repulsion in a transition state of secondary H abstraction.  
 ACCESSION NUMBER: 1978:423399 CAPLUS  
 DOCUMENT NUMBER: 89:23399  
 ORIGINAL REFERENCE NO.: 89:3637a,3640a  
 TITLE: Mechanism of photoacetylation of substituted adamantanes  
 AUTHOR(S): Tabushi, Iwao; Kojo, Shosuke; Fukunishi, Koushi  
 CORPORATE SOURCE: Dep. Synth. Chem., Kyoto Univ., Kyoto, Japan  
 SOURCE: Journal of Organic Chemistry (1978), 43(12), 2370-4  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 42825-02-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 42825-02-5 CAPLUS  
 CN Ethanone, 1-(3-methoxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



L4 ANSWER 46 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 12 May 1984  
 GI For diagram(s), see printed CA Issue.  
 AB Irradiation of adamantane and its derivs. (I; R1 = R2 = H, R = H, Me, MeO, MeCO2, Br, and R = R1 = Me, R2 = H) and Me(CO)2Me gave the acetyl derivs. (I, R2 = Ac) by exclusive bridgehead substitution. The reaction constant obtained from the relative reactivities of the 1-substituted adamantanes was more neg. than for the corresponding reactions with Br•, Cl3C•, and benzophenone.  
 ACCESSION NUMBER: 1973:515201 CAPLUS  
 DOCUMENT NUMBER: 79:115201  
 ORIGINAL REFERENCE NO.: 79:18707a,18710a  
 TITLE: Photoacetylation of substituted adamantanes. Exclusive bridgehead substitution and a large  $\rho^*$  value  
 AUTHOR(S): Tabushi, Iwao; Kojo, Shosuke; Yoshida, Zenichi  
 CORPORATE SOURCE: Dep. Pharm. Sci., Kyushu Univ., Fukuoka, Japan  
 SOURCE: Tetrahedron Letters (1973), (26), 2329-32  
 CODEN: TELEAY; ISSN: 0040-4039  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 42825-02-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 42825-02-5 CAPLUS  
 CN Ethanone, 1-(3-methoxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



L4 ANSWER 47 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
 ED Entered STN: 12 May 1984  
 GI For diagram(s), see printed CA Issue.  
 AB Stepwise treatment of 3-bromo-1-adamantanecarboxylic acid (I; R = CO2H, X = Br) with SOCl2, (EtO2C)2CHMgOEt, and H2O afforded 62% I (R = COMe, X = OH), which was converted to 92% I (R = CH2Me, X = Br) (II) by LiAlH4 reduction, followed by refluxing with 63% aqueous HBr; II gave the title compound (III) in 76% yield with Zn dust in refluxing DMF. III formed complexes with AgNO3 and CuCl, and reacted with aqueous H2SO4, HBr in CCl4, MeCN-H2SO4, Na in MeOH, and I2 to give adamantanes IV (R = Me, X = OH, Br, NHAc, H; R = CH2I, X = I, resp.); bromination of III in CCl4 gave 78:22 1,2-dimethyl- and 1-ethyladamantane in 49% total yield after hydrogenation over Raney Ni of the resultant tribromide in the presence of NaOH.  
 ACCESSION NUMBER: 1973:83902 CAPLUS  
 DOCUMENT NUMBER: 78:83902  
 ORIGINAL REFERENCE NO.: 78:13385a,13388a  
 TITLE: Synthesis and chemical reactions of 3-methylene-7-ethylidenebicyclo[3.3.1]nonane  
 AUTHOR(S): Yurchenko, A. G.; Murzinova, Z. N.; Stepanov, F. N.  
 CORPORATE SOURCE: Kiev. Politekhn. Inst., Kiev, USSR  
 SOURCE: Zhurnal Organicheskoi Khimii (1972), 8(11), 2332-8  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 IT 39917-38-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 39917-38-9 CAPLUS  
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl)- (CA INDEX NAME)



07/04/2008,10716012IIIIa.trn

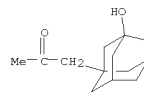
L4 ANSWER 48 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 12 May 1984  
AB 1-[[2-(Methylamino)-propyl]-3,5,7-trimethyladamantane-HCl (I) and similar compds. were prepared by different methods and their pharmacol. activity tested. Thus, 1-bromo-3,5,7-trimethyladamantane was refluxed in aqueous NaHCO<sub>3</sub>-isoPrOH to give 3,5,7-trimethyl-1-adamantanol (II). To II was added BF<sub>3</sub> in H<sub>2</sub>SO<sub>4</sub>, followed by CH<sub>2</sub>Cl<sub>2</sub>, to give 3,5,7-trimethyl-1-adamantaneacetic acid (III). III heated with SOCl<sub>2</sub> gave the corresponding acid chloride, which was added to di-Et malonate Mg salt in Et<sub>2</sub>O to give on saponification 1-(3,5,7-trimethyl-1-adamantyl)-2-propanone (IV). IV was dissolved in MeNH<sub>2</sub>-EtOH and the product hydrogenated over PtO<sub>2</sub> to give, after acidification, I. Fifty-three examples are given.

ACCESSION NUMBER: 1971:141110 CAPLUS  
DOCUMENT NUMBER: 74:141110  
ORIGINAL REFERENCE NO.: 74:22799a,22802a  
TITLE: Adamantanealkylamines antidepressants  
INVENTOR(S): Cashin, Colin H.; Chakrabarti, Jiban K.; Szinai, Stephen S.  
PATENT ASSIGNEE(S): Lilly Industries Ltd.  
SOURCE: Ger. Offen., 84 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1943404	A	19701217	DE 1969-1943404	19690826
GB 1274652	A	19720517	GB 1968-40968	19680827
IL 32892	A	19750425	IL 1969-32892	19690824
BE 737975	A	19700226	BE 1969-737975	19690826
NL 6913046	A	19700303	NL 1969-13046	19690826
AT 307380	B	19730525	AT 1969-8172	19690826
CH 538442	A	19730815	CH 1969-13006	19690826
SE 364037	B	19740211	SE 1969-11809	19690826
CH 551365	A	19740715	CH 1971-14359	19690826
CH 553149	A	19740830	CH 1972-1433	19690826
DK 131721	B	19750825	DK 1969-4578	19690826
FR 2016468	A5	19700508	FR 1969-29356	19690827
FR 2016468	B1	19730608		
JP 49039256	B	19741024	JP 1972-64562	19720629
JP 49039257	B	19741024	JP 1972-64563	19720629
JP 50010856	B	19750424	JP 1972-64561	19720629
US 3929888	A	19751230	US 1973-417174	19731119
US 4027035	A	19770531	US 1975-608613	19750828
PRIORITY APPLN. INFO.:			GB 1968-40968	A 19680827
			US 1969-852090	A2 19690821
			US 1973-417174	A3 19731119

IT 31898-12-1P

L4 ANSWER 48 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)  
RN 31898-12-1 CAPLUS  
CN 2-Propanone, 1-(3-hydroxy-1-adamantyl)- (8CI) (CA INDEX NAME)

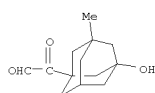


L4 ANSWER 49 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN  
ED Entered STN: 22 Apr 2001  
AB A mixture of 37.5 g. 2-methoxybutadiene, 36.5 g. 3-methyl-3-buten-2-one, and 0.6 g. hydroquinone is heated at 150-80° for 16 hrs. to give 40 g. 1-methoxy-4-acetyl-4-methyl-1-cyclohexene (I). I is stirred with 10 cc. 2% H<sub>2</sub>SO<sub>4</sub> for 10 min., saturated with NH<sub>4</sub>Cl, the upper layer removed, and the lower layer extracted with Et<sub>2</sub>O to give 32 g. 4-acetyl-4-methyl-1-cyclohexanone (II). II (5 g.) is refluxed in 100 cc. aqueous solution of 5 g. KOH for 6 hrs., cooled, neutralized with HCl, and extracted with Et<sub>2</sub>O to give 3 g. 1-methyl-4-hydroxybicyclo[2.2.2]octan-2-one, b<sub>2.5</sub> 100-1°. Similarly prepared are 1-methoxy-4-hydroxybicyclo[2.2.2]octan-2-one (m. 60°) and 1-ethyl-4-hydroxybicyclo[2.2.2]octan-2-one. The products are intermediates for the manufacture of thermo-resistant polyamides.

ACCESSION NUMBER: 1966:67418 CAPLUS  
DOCUMENT NUMBER: 64:67418  
ORIGINAL REFERENCE NO.: 64:12569e-f  
TITLE: 1-Alkyl-4-hydroxybicyclo [2.2.2] octan-2-one  
INVENTOR(S): Morita, Kenichi; Nishimura, Michio  
PATENT ASSIGNEE(S): Toyo Rayon Co., Ltd.  
SOURCE: 2 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

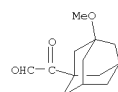
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 41000427	B4	19660118	JP	19631227
PRIORITY APPLN. INFO.:			JP	19631227

IT 6849-15-6P, 1-Adamantaneglyoxylaldehyde, 3-hydroxy-5-methyl-  
6859-85-4P, 1-Adamantaneglyoxylaldehyde, 3-hydroxy-  
6859-86-5P, 1-Adamantaneglyoxylaldehyde, 3-methoxy-  
7016-29-7P, 1-Adamantaneglyoxylaldehyde, 3-methoxy-5-methyl-  
RL: PREP (Preparation)  
(manufacture of)  
RN 6849-15-6 CAPLUS  
CN 1-Adamantaneglyoxylaldehyde, 3-hydroxy-5-methyl- (7CI, 8CI) (CA INDEX NAME)



RN 6859-85-4 CAPLUS  
CN 1-Adamantaneglyoxylaldehyde, 3-hydroxy- (8CI) (CA INDEX NAME)

L4 ANSWER 49 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)  
RN 6859-86-5 CAPLUS  
CN 1-Adamantaneglyoxylaldehyde, 3-methoxy- (7CI, 8CI) (CA INDEX NAME)



RN 7016-29-7 CAPLUS  
CN 1-Adamantaneglyoxylaldehyde, 3-methoxy-5-methyl- (7CI, 8CI) (CA INDEX NAME)

